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### 14. ABSTRACT

The National Defense Science and Engineering Graduate (NDSEG) Fellowship Program offers three-year fellowships as a means of increasing the number of U.S. citizens trained in science and engineering disciplines of military importance. Sponsored by the Army, Navy, Air Force and Defense Advanced Research Projects Agency (DARPA), these fellowships are offered to individuals who have demonstrated ability and special aptitude for advanced training in science and engineering. NDSEG Fellowships are awarded for study and research leading to doctoral degrees in mathematics, physical, biological, ocean and engineering sciences. This grant supported students sponsored by ONR for 29 appointments beginning in academic year 1993/1994 and 33 appointments beginning in academic year 1994/1995. This report contains information on these students as well as NDSEG students supported beginning in academic year 1989 through the final class of students who started in academic year 1994/1995.

### 15. SUBJECT TERMS

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### National Defense Graduate Fellowship Program

**Final Report** 

Grant # N00014-93-1-0774

April 1, 1993 - September 30, 1999

Submitted and Prepared by:

Jeffrey P. Jarosz and Michael P. Moore

**Projects Office** 

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### ONR-NDSEG Graduate Fellowship Program

Grant N00014-93-1-0774 1 April 1993 - 30 September 1999

Final Report

Prepared and submitted by:

Jeffrey P. Jarosz and Michael Moore Projects Department

### 1. Introduction

Grant N00014-93-1-0774, as subsequently amended, provided \$6,858,199 for the support of the program from April 1, 1993 through September 30, 1999 for the fellows appointed in 1993 and 1994.

This report serves as ASEE's final report..

### 2. Administration

ASEE made contact with each of the fellows upon notification from ONR of their selection. ASEE was responsible for the payment of the fellow's stipends and tuition along with a departmental allowance provided to each fellow's graduate institution to cover various expenses related to the fellows' graduate education.

ASEE also had regular reporting requirements. At the end of each academic year, ASEE required all fellows to complete a summer plan form and a faculty adviser was asked to certify the student's progress. These academic reports were then compiled into a single report for ONR. ASEE was also required to submit regular administrative and financial reports describing ASEE's grant management activities and providing a complete financial accounting for the period.

### 3. Financial management and reporting

Two grants plus amendments were awarded to conduct the program from August 1, 1989 through September 30, 1999. A total of \$27,162,017 was authorized to conduct the program for six groups of fellows (three years for each group) through September 30, 1999. ASEE periodically submitted vouchers for advance payment of student support and administrative expenses.

### 4. Stipend and Tuition Payments

From September 1989 through August 1990 ASEE paid fellowship stipends with personal checks

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issued manually by ASEE's accounting department. Since September 1990, stipends have been deposited electronically into fellows' bank accounts on the first working day of each month. Fellows can elect to have stipends deposited into checking or savings accounts.

Tuition payments were made on behalf of the fellows to their respective graduate institutions. ASEE contacted the office of the bursar at each fellow's institution to receive the bills for the tuition and required fees. Upon receipt of the bill, ASEE would issue the appropriate payments.

Departmental allowances were paid to the fellows' graduate institutions at the conclusion of the academic year. After receiving the fellow's academic report and the advisor's certification of academic progress, the payments were issued.

### 5. Summer at Navy R&D centers

ONR invited NDSEG fellows to conduct research at Navy labs during the summer. Every December, ASEE mailed each fellow a list of Navy R&D centers with their current research interests and contact persons. Every January ASEE mailed each R&D center a database listing all the fellows with their addresses, telephone numbers, universities, advisers' names, and detailed descriptions of their research interests. Thus, labs were encouraged to contact the fellows, and fellows were encouraged to contact the labs.

Approximately 25% of the ONR-NDSEG fellows took advantage of the opportunity to conduct research at Navy labs during the summer. In addition to the professional benefits, they received a higher monthly stipend, travel reimbursement for one round trip, and a subsistence allowance.

Feedback from the fellows and their laboratory colleagues was positive.

### 6. Statistics on ONR-NDSEG fellows

ONR awarded a total of 272 NDSEG fellowships through ASEE. Only 33 fellows (12%) withdrew and there were also three "no-shows," persons who accepted the fellowship but never attended graduate school and therefore did not participate in the program.

For the Grant N00014-93-1-0774, 29 fellows were appointed in 1993, of whom 23 completed their three-year tenure, 6 withdrew early, and at least 16 received their Ph.D. In 1994 33 fellows were appointed, of whom 29 completed their three-year tenure, 3 withdrew early, 1 accepted the fellowship but never participated in the program and at least 16 received their Ph.D.

For all six classes of fellows, 1989 - 1994, basic demographic statistics were collected regarding appointments, completions, Ph.D.'s received, gender, ethnicity, and discipline. Full statistical analyses were the responsibility of other contractors, responsible for the actual review of applications and appointment of fellows.

Slightly more than a quarter of the participants were women (73 out of 272) and less than one-fifth (49 out of 273) of the participants were members of an under-represented minority. By far

F

the single largest group of participants was non-minority males representing more than one-half of all participants (163 out of 272). Attachment F consists of charts showing the breakdown by gender and ethnicity for the all classes from 1989-1994.

When their tenure ended, ASEE mailed all of the fellows who completed their tenure a farewell letter and a form. The letter encouraged them to keep ASEE informed of their whereabouts. The form requested their mailing address, telephone number and immediate plans; it also asked whether they plan to continue their pursuit of the PhD full time, study part time and work part time, or abandon their pursuit of the PhD. The forms which have returned to ASEE indicate that most ex-fellows are continuing their pursuit of the PhD full time and anticipate receiving it in approximately one more year.

For long-term tracking, ASEE also sent letters and forms to fellows who completed the program two years earlier. ASEE continued this tracking through August 1999, updating information on fellows' whereabouts and activities every two years.

Of the 272 fellows appointed between 1989 and 1994, 236 completed their three-year tenure and the remaining 36 either withdrew from the program (33) or never entered graduate school (3). 178 fellows responded to the questionnaires they received after the completion of the fellowship and 170 fellows reported that they had received their Ph.D., four were still pursuing their degree, and four had withdrawn from graduate school. No information is available for the 58 fellows who never responded to the questionnaire, but it is ASEE's assumption that many of these fellows continued their studies and received their Ph.D. after their fellowship.

Counting the four fellows who were still pursuing their degree at the last contact, almost two-thirds (64%) of the program's participants have (or will) received a Ph.D. as a result of the support received from the fellowship. This number is expected to be even higher, because it is very likely that at least half of the fellows who contact was lost with would have completed their degree.

### Attachments:

Attachment A is a listing of all of the fellows appointed by ONR from 1989 to 1994 with their graduate institution, whether or not they completed their three-year tenure, the date of their Ph.D. (if known), and last-known employment. Attachment B is a chart showing the number of appointments per year, the number of completed tenures, the number of confirmed Ph.D.'s and the number of drop-outs. Attachment C is the Drop-Out Report listing all of the fellows who withdrew from the program prior to the completion of their tenure and reasons they withdrew. Attachment D is a graph of the appointments by discipline for 1993 and 1994. Attachment E is a chart of participant disciplines for the years 1989 - 1994 for all participants. Attachment F is a series of charts showing the breakdown by gender and/or ethnicity for ONR-funded NDSEG fellows. Attachment G is a compilation of comments ASEE received from fellows at the conclusion of their fellowship.

Zame	School	1989 ONR Appointees Completed Tenure Date of Ph.D.	ntees Date of Ph.D.	Last Known Employer
Alston, Michael	University of California, San Diego	Yes	9/92	
Attanasio, Steven	Massachusetts Institute of Technology	Yes	2/96	Senior Engineer at Knolls Atomic Power Lab (Lockheed-Martin)
Barr, John	University of Missouri, Rolla	Yes	2/97	
Betancourt, Marcos	University of California, San Diego	Yes	6/6	Postdoctoral Fellow at University of Maryland
Brook, Edward	Massachusetts Institute of Technology	Yes	2/94	Postdoctoral Fellow at University of Rhode Island
Chinn, Jason	California Institute of Technology	по		Withdrew early
Cisneros, Joseph	University of California, Los Angeles	Yes		
Cornejo-Weaver, Gabriela	University of Colorado	Yes	1994	Faculty Member at University of California, Denver
Court, Mary	Rensselaer Polytechnic University	Yes	3/93	
Danilowicz, Bret	Duke University	Yes	4/94	Lecturer at University College, Dublin
Del Castillo, Jesus	University of California, Davis	Yes	12/93	
Dhar, Lisa	Massachusetts Institute of Technology	Yes		
Ernst, Michael	Massachusetts Institute of Technology	Yes		Employed by Microsoft
Gadd, Steven	University of California, Berkeley	Yes	2/95	
Goodwin, Robert	University of Michigan	Yes	96/9	Ni*
Graettinger, Thomas	North Carolina State University	Yes	,	
Groh, Jennifer	University of Pennsylvania	Yes	12/93	
Hahn, Thomas	Carnegie Mellon University	Yes		
Kalish, Michael	University of California, San Diego	Yes		. A
Kim, John	Massachusetts Institute of Technology	Yes	5/93	
Lang, Adam Kennedy	Carnegie Mellon University	Yes	12/94	
Lee, Jennifer	Massachusetts Institute of Technology	Yes	8/94	
Lynch-Stieglitz, Jean	Columbia University	Yes	2/95	Faculty Member at Columbia University
McDonald, Brian	Stanford University	Yes	6/63	
Nissenbaum, Amelia	New York University	Yes		
Potts, Virginia		ou		Accepted, no further correspondence
Schwartz, Elliott	Massachusetts Institute of Technology	Yes	1/95	Postdoctoral Fellow at Los Alamos National Laboratory
Sklar, Erik	Brown University	Yes	6/93	
Stevenson, J. Mark	University of California, San Diego	Yes	6/92	Employed by Space & Naval Warfare Center, San Diego
Swift, Dana	University of Washington	Yes	6/6	Faculty Member at University of Washington
Taylor, Valerie	University of California, Berkeley	Yes		Faculty Member at Northwestern University.
Tighe, Thomas	Harvard University	Yes	1/93	
Tomg, Eric	Stanford University	Yes	8/94	Faculty Member at Michigan State University
Trenk, Ann	Johns Hopkins University	Yes		Postdoctoral Fellow at Dartmouth College
Tung, Eugene	University of California, Berkeley	Yes	6/63	

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Name	School	I enure	Date of Pn.D.	Last known Employer
Alston, Michael	University of California, San Diego	6 ;	7616	(-;) ( ) 1 u 1 1 1 1
Attanasio, Steven	Massachusetts Institute of Technology	Yes	2/96	Senior Engineer at Knolls Atomic Power Lab (Lockneed-Martin)
Barr, John	University of Missouri, Rolla	Yes	2/97	
Betancourt, Marcos	University of California, San Diego	Yes	6/62	Postdoctoral Fellow at University of Maryland
Brook, Edward	Massachusetts Institute of Technology	Yes	2/94	Postdoctoral Fellow at University of Rhode Island
Chinn, Jason	California Institute of Technology	no		Withdrew early
Cisneros, Joseph	University of California, Los Angeles	Yes		
Comejo-Weaver, Gabriela	University of Colorado	Yes	1994	Faculty Member at University of California, Denver
Court, Mary	Rensselaer Polytechnic University	Yes	3/93	
Danilowicz, Bret	Duke University	Yes	4/94	Lecturer at University College, Dublin
Del Castillo, Jesus	University of California, Davis	Yes	12/93	
Dhar, Lisa	Massachusetts Institute of Technology	Yes		
Ernst, Michael	Massachusetts Institute of Technology	Yes		Employed by Microsoft
Gadd, Steven	University of California, Berkeley	Yes	2/95	
Goodwin, Robert	University of Michigan	Yes	96/9	
Graettinger, Thomas	North Carolina State University	Yes		
Groh, Jennifer	University of Pennsylvania	Yes	12/93	
Hahn, Thomas	Carnegie Mellon University	Yes		
Kalish, Michael	University of California, San Diego	Yes		
Kim, John	Massachusetts Institute of Technology	Yes	2/93	
Lang, Adam Kennedy	Carnegie Mellon University	Yes	12/94	
Lee, Jennifer	Massachusetts Institute of Technology	Yes	8/94	
Lynch-Stieglitz, Jean	Columbia University	Yes	2/95	Faculty Member at Columbia University
McDonald, Brian	Stanford University	Yes	6/63	
Nissenbaum, Amelia	New York University	Yes		
Potts, Virginia		ou		Accepted, no further correspondence
Schwartz, Elliott	Massachusetts Institute of Technology	Yes	1/95	Postdoctoral Fellow at Los Alamos National Laboratory
Sklar, Erik	Brown University	Yes	6/93	
Stevenson, J. Mark	University of California, San Diego	Yes	6/92	Employed by Space & Naval Warfare Center, San Diego
Swift, Dana	University of Washington	Yes	6/62	Faculty Member at University of Washington
Taylor, Valerie	University of California, Berkeley	Yes		Faculty Member at Northwestern University
Tighe, Thomas	Harvard University	Yes	1/93	
Torng, Eric	Stanford University	Yes	8/94	Faculty Member at Michigan State University
Trenk, Ann	Johns Hopkins University	Yes		Postdoctoral Fellow at Dartmouth College
Tung, Eugene	University of California, Berkeley	Yes	9/93	

	Withdrew early	Employed by Institute of Systems Science	Postdoctoral Fellow at Educational Testing Services
		6/63	6/94
Yes	ои	Yes	Yes
University of California, Los Angeles	Stanford University	Boston University	Harvard University
Willard, Monique	Wong, Jose	Wyse, Lonce	Zeger, Linda

1989 Appointments - 39

### 1990 ONR Appointees

Name	School	Completed Tenure Date of Ph D	Last Known Employer	
Allen, Donald	University of Wisconsin			
Ansari, Amid	University of Michigan	no	Withdrew early	
Bane, Kimberly	North Carolina State University	Yes 12/94	Assistant Professor at Bloomfield College	
Barnum, Douglas	University of California, Berkeley	Yes		
Bawolek, Edward	Arizona State University	Yes		
Bhattacharya, Urmi	Stanford University	Yes 6/97		
Bigot, Peter	University of Arizona	Yes 6/96		
Bisantz, Ann	Georgia Institute of Technology	Yes 1997		
Bowline, Cynthia	Oregon State University	Yes 12/93		
Brown, Holly	University of Washington	Yes	Employed by General Communications	
Вгоwп, Репу	University of Arkansas	по	Withdrew early	
Caldwell, Ellen	University of Alabama, Birmingham	Yes 6/95		
Casey, Michael	University of California, San Diego	Yes 3/95	Postdoctoral Fellow at Brandeis University, Sloan Foundation	n Foundation
Chapsky, Lars	University of California, Berkeley	Yes 12/97	Assistant Professor at Arizona State University	
Chui, Herman	Stanford University	Yes 8/94	Employed by Hewlett-Packard	
Cofer, Darren	University of Texas	Yes 5/95	Employed by Honeywell Technology Center	
Craig, Anthony	University of Washington	no	Withdrew early	
Dahiyat, Bassil	California Institute of Technology	Yes 6/96		
Dennin, MIchael	University of California, Santa Barbara	Yes 8/95	Postdoctoral Fellow at University of California, Los Angeles	Los Angeles
Durkin, James	Cornell University	Yes		
Egolf, David	Duke University	Yes 5/95		
Ephron, David	Stanford University	Yes 6/96	Postdoctoral Fellow at Stanford University	
Gingrich, Harold Scott	University of New Mexico	Yes 5/95		
Grah, Michael	Purdue University	Yes 12/93	Employed by Michelin Tire Corporation	
Haase, Mark Christopher	University of Chicago	Yes 8/96	Employed by Glynn Scientific, Inc.	
Hiemstra, David	University of Illinois	no	Withdrew early	
Hoover-Dahlseid, Tina	Northwestern University	Yes		
Kelly, Rhonda	University of Washington	Yes		
Koehler, Derek	Stanford University	Yes 9/93	Faculty Member at University of Waterloo	
Kohfeld, Karen	Lamont-Doherty Earth Observatory	Yes 10/96		
Laursen, Annette		no	Accepted, no further correspondence	
Lipphardt, Bruce	Old Dominion University	Yes 5/95	Associate Research Scientist at University of Delaware	laware
Mattingly, William	Cornell University	Yes 8/95	Employed by Corning, Inc.	
McCleary, James	Texas A&M University	Yes		
Orsi, Thomas	Texas A&M University	Yes	Employed by Planning Systems, Inc.	

Pierson, Viccki	University of Maryland, Baltimore County	Yes		
Pizarro, Pedro	California Institute of Technology	Yes	6/94	Employed by McKinsey & Company
Raubenheimer, Britt	University of California, San Diego	Yes	3/96	Assistant Scientist at Woods Hole Oceanographic Institute
Rincon, Diana	University of Michigan	Yes	12/93	Faculty Member at Universidad de los Andes
Robinson, Jennifer	Georgia Institute of Technology	Yes	10/96	Employed by Lucent Technologies
Royston, Thomas	Ohio State University	Yes	9/92	
Russakow, Jeffrey	Stanford University	Yes	96/9	Employed by McKinsey & Company
Ryan, John	University of Rhode Island	Yes	86/8	Postdoctoral Fellow at Monterey Bay Aquarium Research Institute
Santos, Eunice	University of California, Berkeley	Yes		
Shipley, Brooke	Massachusetts Institute of Technology	Yes	96/9	Postdoctoral Fellow at University of Notre Dame
Super-Fried, Naomi	Massachusetts Institute of Technology	Yes	26/6	Employed by Newton Scientific, Inc.
Taylor, Brian	Massachusetts Institute of Technology	Yes		
Thomas, Jeffrey	University of Texas	Yes	12/98	System Architect at Trilogy
Turk, George	Oregon State University	no		Withdrew early
Voyles, Richard	Carnegie Mellon University	Yes	26/8	Faculty Member at University of Minnesota

1990 Appointments - 50

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Adams, Jennifer	University of California, Berkeley	Yes		
	University of California, San Diego	Yes		
•	University of California, Los Angeles	Yes		
Annau, Thomas	California Institute of Technology	Yes	96/9	Employed by Hughes Research Labs
Barnard, Thomas	University of Michigan	Yes		
Beauchamp, Nathaniel	University of South Florida	Yes		
_	Princeton University	Yes	2/95	Employed by Princeton Financial Engineering
1	Harvard University	Yes	96/9	
•	Comell University	Yes	86/8	Visiting Professor at Trinity College
Bouwhuis, Mary	Michigan Technological University	Yes	96/9	
•	Carnegie Mellon University	Yes	<b>L6/9</b>	
-	University of Michigan	Yes	11/96	Postdoctoral Fellow at Carnegie Geophysical Laboratory
-	University of California, Berkeley	Yes		
-	University of Washington	Yes	1996	Research Scientist at Technology, Planning & Management Corp.
Dantsker, Eugene	University of California, Berkeley	Yes	2/97	
Dilley, Suzanne	Georgia Institute of Technology	ou		Withdrew early
Dunkle-Shapiro, Stephanie	Columbia University	Yes	86/9	Researcher at Lamont-Doherty Earth Observatory
Eason, Margaret	Duke University	Yes	12/94	Faculty Member at University of Cincinnati
Edmonds, Henrietta	Massachusetts Institute of Technology	Yes	2/97	Postdoctoral Fellow in United Kingdom sponsored by NATO
Edwards, Jonathan	Harvard University	Yes	96/9	
	Stanford University	Yes		
Epstein, Russell	Harvard University	Yes	96/9	
el	Harvard University	Yes	1/97	
	Stanford University	no		Withdrew early
Filipelli, Gabriel	University of California, Santa Cruz	Yes		Faculty Member at Indiana University
-	Oregon State University	Yes		
Glasheen, James	Harvard University	Yes	96/9	Postdoctoral Fellow at University of California, Berkeley
	Pennsylvania State University	Yes	1993	Faculty Member at University of New Hampshire
	Harvard University	Yes	<i>L6/9</i>	
	University of Florida	Yes		
Holmes, Archie	University of California, Santa Barbara	Yes	<i>L6/9</i>	Assistant Professor at University of Texas
	California Institute of Technology	Yes	12/98	Research Associate at the University of Southern California
Howell-Kubler, Alexis	University of Washington	по		Withdrew early
Hsu, Lawrence	Massachusetts Institute of Technology	ои		Withdrew early
	Initiatity of California Can Diego	Nes N	1006	Postdoctoral Fellow at Salk Institute

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Hubbard, Bryan	Texas A&M University	Yes 1	12/94	Employed by Marley Cooling Tower
Hughes-Lanning, Christine	Duke University	Yes		31.00
Hulbert-Shearon, Tempie	University of Michigan	Yes	ou	Employed by Kidney Epidemiology and Cost Center
Isaacs, Lyle	University of California, Los Angeles	no		Withdrew early
Jacob, Joseph	Comell University	Yes	1/97	Employed by Jet Propulsion Laboratory
Kaihatu, James	University of Delaware	Yes	7/94	Employed by Naval Research Laboratory
Katine, Jordan	Harvard University	Yes	96/6	
Kewitsch, Anthony	California Institute of Technology	Yes	1995	Employed by Антоуо Optics
Kocian, Lorna	Stanford University	Yes		
Kohin, Suzanne	University of California, Santa Cruz	Yes	86/9	Postdoctoral Fellow at Univ of California, San Diego Medical
LeBel, Deborah	University of Washington	Yes	12/97	
Lee, Katherine	Massachusetts Institute of Technology	Yes	96/9	Scientist at Mitotix, Inc.
Lesh, Neal	University of Washington	Yes	96/8	
Lewis, Daniel	Stanford University	no		Withdrew early, employed by Motorola
Lipkin, Don	University of California, Santa Barbara	Yes		
Liu, Robert	Stanford University	Yes	1/98	Postdoctoral Fellow at University of California, San Francisco
Logan, Cameron	Harvard University	Yes		
Marchelya, John	Johns Hopkins University	Yes		
Marsh, Craig	Georgia Institute of Technology	Yes		
Matsushima, Harriet	Boston University	ou		Withdrew early
McLean, Jennifer	University of Washington	Yes	96/8	
Menningen, Kenneth	University of Wisconsin	Yes	\$/95	Faculty Member at University of Wisconsin, Whitewater
Mikic, Borjana	Stanford University	Yes		
Mitzenmacher, Michael	University of California, Berkeley	Yes	96/L	
Munakata, Yuko	Carnegie Mellon University	Yes	12/96	Faculty Member at University of Denver
Namboodri, Chettoor	Virginia Polytechnic Institute	по		Withdrew early
Nelson, Lynn	Massachusetts Institute of Technology	Yes	2/97	
Newyear, Karl	University of Washington	Yes		Continuing studies at University of Washington
Nyerges-Chance, Beth	Cornell University	Yes	8/94	Faculty Member at University of the Pacific
Nystrom, Michael	Northwestern University	Yes	12/96	Physical Scientist at National Institute of Standards & Technology
Ogston, Andrea	University of Washington	Yes	4/97	
Packman, Aaron	California Institute of Technology	Yes	96/9	
Poon, Alex	Stanford University	Yes	12/95	
Ratz, Andrew	Harvard University	Yes	96/9	
Rawsky, Glenn	Northwestern University	Yes	9/95	
Redsten-Jansen, Ann	Massachusetts Institute of Technology	Yes	2/96	Employed by Arthur D. Little, Inc.
Rehmann, Chris	Stanford University	Yes	3/95	Postdoctoral Fellow at Woods Hole Oceanographic Institute

Employed by Research Triangle Institute	Employed by Millennium Pharmaceuticals			Employed by David Sarnoff Research Center	Postdoctoral Fellow at Argonne National Laboratory	Withdrew early		Withdrew early		Research Engineer at Massachusetts Institute of Technology			Withdrew early	Postdoctoral Fellow at Microsoft	
96/8	96/9	12/97	2/95	<b>L6/9</b>	96/9		12/96		12/99	96/6		2/96		2/96	96/8
Yes	Yes	Yes	Yes	Yes	Yes	ou	Yes	ou	Yes	Yes	Yes	Yes	no	Yes	Yes
Stanford University	Harvard University	University of California, Los Angeles	Texas A&M University	University of Pennsylvania	Northwestern University	Carnegie Mellon University	University of Washington	Massachusetts Institute of Technology	University of Southern Mississippi	Massachusetts Institute of Technology	Massachusetts Institute of Technology	Cornell University	Massachusetts Institute of Technology	Massachusetts Institute of Technology	University of California, Berkeley
Richter, Anke	Robison, Keith	Ross, Mark	Rutledge, Anne	Sajda, Paul	Sanders, Paul	Seiler, Frederick	Sonnerup, Rolf	Spiers, Bradford	Stewart, Matthew	Taylor, Todd	Tedesco, Matthew	Vaia, Richard	Villeneuve, Randall	Wilson, David Bruce	Zuniga, Marco

1991 Appointments - 89

Nome	School	Completed Tenure	Date of Ph.D.	Last Known Employer
Barbeau, Katherine	Massachusetts Institute of Technology	Yes	86/9	
Beaulieu, Stacey	University of California, San Diego	Yes	86/6	
Bower, Michael	University of California, San Francisco	Yes	4/97	Employed by Smith Kline Beecham Pharmaceutical Company
Burnside, Shelly	Cornell University	Yes	96/6	
Chick, Steven	University of California, Berkeley	Yes	2/95	Faculty Member at University of Michigan
Cimaszewski, Steven	Massachusetts Institute of Technology	no		Withdrew early
Conrad, Keith	Harvard University	Yes	1997	Faculty Member at Ohio State University
Cook, Grant	Stanford University	ОП		Withdrew early
Cutrer, David	University of California, Berkeley	Yes	96/8	
Falvo, James	Harvard University	Yes		
Fleischer, Lisa	Cornell University	Yes	<i>L6/9</i>	
Fung, Francis	Princeton University	Yes	<i>L6/9</i>	Employed by Odyssey Research Associates
Gleixner, Robert	Stanford University	Yes	86/5	Senior Reliability Engineer at Intel Corporation
Hancock, Mark	University of Delaware	ou		Withdrew early
Harris, Carolyn	Massachusetts Institute of Technology	Yes	Yes, no date	Faculty Member at Boston University
Harville, Michael	Stanford University	Yes		
Honea, Michael	North Carolina State University	ou		Withdrew early
Kietzman, John	Stanford University	Yes	4/99	Employed by Lexmark International
Lee, Carol	University of Washington	Yes	3/88	Postdoctoral Fellow at National Science Foundation
Lemoine, James	Massachusetts Institute of Technology	Yes	оп	Employed by Quantum Corporation
Levitin, Daniel	University of Oregon	Yes	96/9	Postdoctoral Fellow at Interval Research Corporation
McLaughlin, Shirpaul	Georgia Institute of Technology	Yes	66/5	Employed by Motorola
Pedulla, Marisa	University of Pittsburgh	Yes	4/98	Postdoctoral Fellow at Washington State University
Reardon, Brian	University of Illinois	Yes	96/8	
Sadd, Michael	Cornell University	Yes	86/8	Staff Scientist at Motorola - SPS
Smedira, Scott	Cornell University	Yes	86/8	
Swanson, Eric	Stanford University	ou		Withdrew early
Weicker, Nathalie	Massachusetts Institute of Technology	ou		Withdrew early
Wilson, David Selkirk	Stanford University	Yes	86/9	
Wozniak, John	Pennsylvania State University	Yes	96/9	
Yarowsky, Daivd	University of Pennsylvania	Yes	96/5	
Young, Reginald	Harvard University	Yes	<i>L</i> 6/9	

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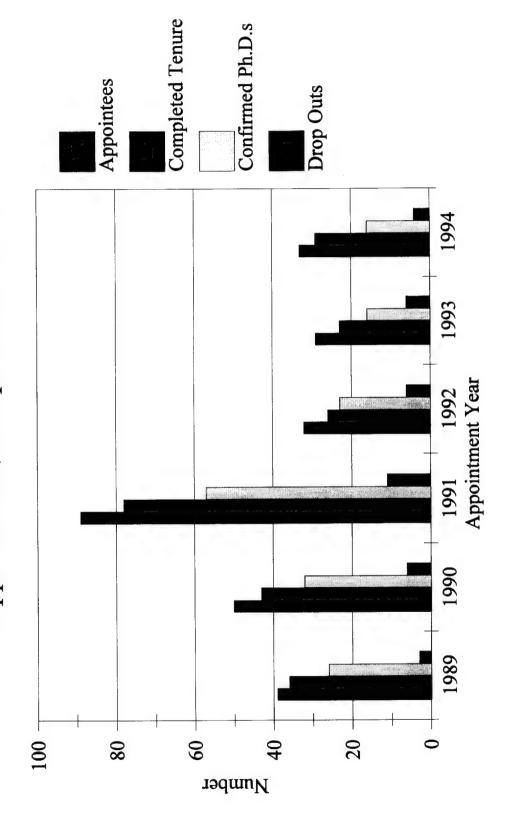
Nome	School	Completed Tenure	Date of Ph.D.	Last Known Employer
Alonzo, Alicia	California Institute of Technology	Yes	66/9	F-3
Cohen, Amanda	University of Washington	Yes	ou	Pursued Environmetal Internships in Seattle, Washington
Daly, Peter	Massachusetts Institute of Technology	Yes	00/9	
Forbes, Jeffrey	University of California, Berkeley	Yes		
Gratt, Jason	Massachusetts Institute of Technology	Yes	66/9	
Hamme, Roberta	University of Washington	Yes	по	Employed by Scott Semiconductor Gases
Hoehler, Tori	University of North Carolina	Yes	86/5	NRC Associate at NASA-Ames Research Center
Kadlec, Lisa	Duke University	Yes	86/6	Research Associate at Howard Hughes Medical Institute
Ketchpel, Steven	Stanford University	Yes	<i>26/8</i>	
Krause, Jean	Massachusetts Institute of Technology	Yes	2/00	
Krueger, Brent	University of Chicago	Yes	86/8	
Larkin, Narasimhan	University of Washington	Yes	86/8	
Molles, Kenneth	University of California, San Diego	Yes		Continuing studies at University of California, San Diego
Moroney, Jean	Carnegie Mellon University	ou		Withdrew early
Nevins, Thomas	University of Chicago	Yes	00/9	
Nguyen, Ky Ngoc	Stanford University	ou		Withdrew early
Norman, Kenneth	Harvard University	Yes	66/9	
Okhuysen, Victor	Pennsylvania State University	ou		Withdrew early
Palko, Carl	University of Illinois	Yes	1/98	Technical Staff at The Aerospace Corporation
Peters, Robert	Harvard University	Yes	1999	
Pollack, David	Harvard University	Yes		
Poon, Anna	Massachusetts Institute of Technology	ou		Withdrew early
Ripley, Bonnie	Massachusetts Institute of Technology	Yes	2/98	Scientist at JSA Environmental
Shutts, Chris	Massachusetts Institute of Technology	ou		Withdrew early
Turner, James	University of Washington	no		Withdrew early
Vargas, Matthew	Stanford University	Yes		
Wayne, Kevin	Cornell University	Yes	86/8	Lecturer at Princeton University
Winton, Michael	University of California, Berkeley	по		Tenure Extended
Wolfgang, Meldon	Massachusetts Institute of Technology	Yes	66/5	

1993 Appointments - 29

		1 ciliate	Date of FILD.	
Anderson, Eric University of California, Berkeley	t, Berkeley	Yes		
Massachusetts Institute of Technology	of Technology	Yes	2000	
University of Miami		Yes		
Boudreau, Charles Harvard University		no		Withdrew early
Britten, Stephen Massachusetts Institute of Technology	of Technology	ou	1/98	Tenure Extended
Bromberg, Hilary Harvard University		Yes		
Burgett, Russell University of Rhode Island	and	Yes		
	1, Berkeley	Yes	1999	
Massachusetts Institute of Technology	of Technology	ou		Withdrew early
Cimbala, David Comell University		ou		Tenure Extended
Cook, Benjamin Massachusetts Institute of Technology	of Technology	Yes		
Empedocles, Stephen Massachusetts Institute of Technology	of Technology	Yes	66/9	Scientist at Quantum Dot Corporation
Epifanio, Craig University of Washington	on	Yes	12/99	Postdoctoral Fellow at National Center for Atmospheric Research
Finberg, David Massachusetts Institute of Technology	of Technology	Yes		
Fischer, Albert Massachusetts Institute of Technology	of Technology	Yes	00/9	
Colorado State University	ity	Yes		
Grundy, William University of California, San Diego	a, San Diego	Yes	86/9	Assistant Professor at Columbia University
Hallgren, Sean University of California, Berkeley	a, Berkeley	Yes	2/00	
Herring, Jeanette Vanderbilt University		Yes	1999	
University of California, Berkeley	a, Berkeley	Yes		
Houser, Dorian University of California, Santa Cruz	a, Santa Cruz	Yes	86/9	Tenure Extended
Stanford University		Yes	1/00	Information Systems Consultant at Tenfold Corporation
Massachusetts Institute of Technology	of Technology	Yes		
Keeton, Charles Harvard University		Yes	86/9	
Marsh, Elizabeth Stanford University		Yes	66/9	
State University of New York at Stony	w York at Stony Brook	Yes		Continuing studies at SUNY, Stony Brook
Nemey, Jacqueline Stanford University		Yes	00/9	
Massachusetts Institute of Technology	of Technology	Yes	ОП	Entered the Dominican Order
Massachusetts Institute of Technology	of Technology	Yes	12/99	
Harvard University		Yes		Continuing studies at Harvard University
		no		Accepted, no further correspondence
University of Michigan		по		Withdrew early
Massachusetts Institute of Technology	of Technology	Yes	66/9	Consultant with Dean & Company

## 1994 Appointments - 33

# ONR-NDSEG Program, 1989-1994 Appointments, Completions, Ph.D.'s



### **ONR-NDSEG Dropouts**

NDSEG fellows who forfeited their funding before obtaining their Ph.D were:

### 1989 Selections

Wong, Jose – Mathematical Programming Chinn, Jason – Chemistry

### 1990 Selections

Hiemstra, David - Mechanical Engineering
Turk, George- Naval Architecture & Ocean Engineering
Craig, Anthony - Oceanography
Brown, Perry - Manufacturing Engineering
Ansari, Amid - Mechanical Engineering

### 1991 Selections

Spiers, Bradford - Computer Science
Namboodri, Chettoor - Mechanical Engineering
Matsushima, Harriet - Manufacturing Engineering
Lewis, Daniel - Electrical Engineering
Isaacs, Lyle - Chemistry
Hsu, Lawrence - Electrical Engineering
Fick, Michael - Mechanical Engineering
Dilley, Suzanne - Manufacturing Engineering
Howell-Kubler, Alexis - Oceanography
Seiler, Frederick - Electrical Engineering

### 1992 Selections

Cimaszewski, Steven - Mechanical Engineering Cook, Grant - Mechanical Engineering Hancock, Mark - Naval Architecture & Ocean Engineering Honea, Michael - Electrical Engineering Weicker, Nathalie - Oceanography

### 1993 Selections

Nguyen, Ky – Manufacturing Sciences and Engineering Okhuysen, Victor - Manufacturing Sciences and Engineering Poon, Anna - Chemistry Shutts, Christopher - Manufacturing Sciences and Engineering Spicer, John - Manufacturing Sciences and Engineering Turner, James – Oceanography

### 1994 Selections

Boudreau, Charles - Chemistry Chu, Edison - Materials Science and Engineering Moroney, Jean - Cognitive, Neural and Behavioral Sciences

### 1989 Selections

Jose Wong attended Stanford University. Mr. Wong dropped out of school due to poor academic performance. He failed both comprehensive exams. Mr. Wong did not receive a Master's Degree from Stanford. He did not indicate his future plans to continue his doctoral studies at a later date.

Jason Chinn earned his Master's Degree from California Institute of Technology. Mr. Chinn indicated he no longer wished to continue his graduate studies after obtaining his Master's Degree. Mr. Chinn obtained employment in the research & development department of a pharmaceutical company in North Carolina. He did not indicate his future plans to continue his doctoral studies at a later date

### 1990 Selections

David Hiemstra earned his Master's Degree from University of Illinois at Urbana-Champaign. Mr. Hiemstra indicated he no longer wished to continue his graduate studies after obtaining his Master's Degree. Mr. Hiemstra was able to obtain employment, and did not indicate his future plans to continue his doctoral studies at a later date

George Turk earned his Master's Degree from Oregon State University. Mr. Turk indicated he no longer wished to continue his graduate studies after obtaining his Master's Degree. Mr. Turk obtained employment with the U.S. Army Corps of Engineers as a coastal research engineer. He did not indicate his future plans to continue his doctoral studies at a later date.

Anthony Craig attended the University of Washington. In July 1991 Mr. Craig asked for and was granted a one-year leave of absence. Mr. Craig withdrew from graduate school and did not earn his Master's Degree. He did not indicate his future plans to continue his doctoral studies at a later date.

Perry Brown attended the University of Arkansas. In August 1991 Mr. Brown indicated he no longer wished to continue his graduate studies. Mr. Brown stated the NDSEG Program did not work out for him. Mr. Brown did earn his Master's Degree. He did not indicate his future plans to continue his doctoral studies at a later date.

Amid Ansari earned his Master's Degree from the University of Michigan. In January 1991 Mr. Ansari requested and was granted a leave of absence. Mr. Ansari was to resume his NDSEG Fellowship in July 1991, but did not return. Mr. Ansari indicated he would continue his doctoral studies at a later date.

### 1991 Selections

Bradford Spiers earned his Master's Degree from MIT in May 1994. Mr. Spiers indicated he no longer wished to continue his graduate studies after obtaining his Master's Degree. Mr. Spiers found employment and he did not indicate his future plans to continue his doctoral studies at a later date.

Chettoor Namboodri earned his Master's Degree from Virginia Polytechnic Institute in December 1992. Mr. Namboodri indicated he no longer wished to continue his graduate studies after obtaining his Master's Degree. Mr. Namboodri received employment offers from Michelin Tire Corporation, General Electric Company and Ingersoll-Rand Company; he did not indicate his future plans to continue his doctoral studies at a later date.

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Harriet Matsushima earned her Master's Degree from Boston University. In January 1993 Ms. Matsushima asked for and was granted permission to discontinue her NDSEG Fellowship. She stated she was offered an employment opportunity that couldn't be pass up at the time. Ms. Matsushima did not indicate her future plans to continue her doctoral studies at a later date.

Daniel Lewis earned his Master's Degree from Stanford University. Mr. Lewis indicated he no longer wished to continue his graduate studies after obtaining his Master's Degree. Mr. Lewis found employment at Motorola; he did not indicate his future plans to continue his doctoral studies at a later date.

Lyle Isaacs earned his Master's Degree from UCLA. Mr. Isaacs asked for and was granted permission to discontinue his NDSEG Fellowship after obtaining his Master's Degree. Mr. Isaacs stated he intended to continue his doctoral studies in Zurich, Switzerland.

Lawrence Hsu earned his Master's Degree from MIT. Mr. Hsu indicated he no longer wished to continue his graduate studies after obtaining his Master's Degree. Mr. Hsu found employment and he did not indicate his future plans to continue his doctoral studies at a later date.

Michael Fink attended Stanford University. In January 1992 Mr. Fink dropped out of graduate school. Mr. Fick did not earn a Master's Degree. He did not indicate his future plans to continue his doctoral studies at a later date

Suzanne Dilley earned her Master's Degree from Georgia Institute of Technology. In December 1992 Ms. Dilley withdrew from graduate school. Ms. Dilley stated she could be more beneficial to the field of manufacturing in industry than performing research. She did not indicate her future plans to continue her doctoral studies at a later date.

Alexis Howell-Kubler attended University of Washington. Ms. Howell-Kubler dropped out of graduate school before completing the NDSEG Fellowship.

Frederick Seiler earned his Master's Degree from Carnegie Mellon University in May 1993. Mr. Seiler requested to withdraw from the NDSEG Fellowship Program due to personal reasons after receiving his Master's Degree. He did not indicate his future plans to continue his doctoral studies at a later date

### 1992 Selections

Steven Cimaszewski attended MIT Mr. Cimaszewski withdrew from graduate school before completing the NDSEG Fellowship for personal reasons.

Grant Cook attended Stanford University. Mr. Cook withdrew from the NDSEG Fellowship after completing his Master's degree. Mr. Cook sought employment and did not indicate any intention to complete his doctoral studies.

Mark Hancock attended University of Delaware. Mr. Hancock withdrew from graduate school before completing the NDSEG Fellowship. Mr. Hancock received his Master's degree and took a consulting position Frederic C. Harris.

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Michael Honea attended North Carolina State University. Mr. Honea accepted another fellowship in 1995 with which he intended to complete his doctoral studies.

Nathalie Weicker attended MIT. Ms. Weicker asked for and received a one-year leave of absence due to medical reasons. After the leave of absence Ms. Weicker did not return to graduate school.

### 1993 Selections

Ky Nguyen received his Master's degree from Stanford University. He was not admitted into the Ph.D. program. Mr. Nguyen dropped out of the NDSEG Fellowship Program in May 1995. He did not indicate his plans to continue his doctoral studies at a later date.

Victor Okhuysen received his Master's degree from Pennsylvania State University. Mr. Okhuysen left the NDSEG Fellowship Program to accept a position at CMI-Tech Cast Inc. He indicated his planned to continue working on his dissertation research and towards completion of his Ph.D. while employed.

Anna Poon received her Master's degree from MIT. Ms. Poon stated she no longer wished to continue her graduate studies after obtaining her Master's degree. She indicated pursing a Ph.D was not in her best interest at the time.

Christopher Shutts received his Master's degree from MIT. Mr. Shutts stated he no longer wished to continue his graduate studies after obtaining his Master's degree. He did not indicate his future plans to continue his doctoral studies at a later date.

John Spicer did not receive his Master's degree from the University of Michigan. He asked for and was granted permission to withdraw from the NDSEG Fellowship Program. In October 1995 Mr. Spicer found employment and he did not indicate his future plans to continue his doctoral studies at a later date.

James Turner received his Master's degree from the University of Washington. Mr. Turner no longer wished to continue his doctoral studies after receiving his Master's degree. He accepted a job offer and gave no indication he wished to continue his studies at a later date.

### 1994 Selections

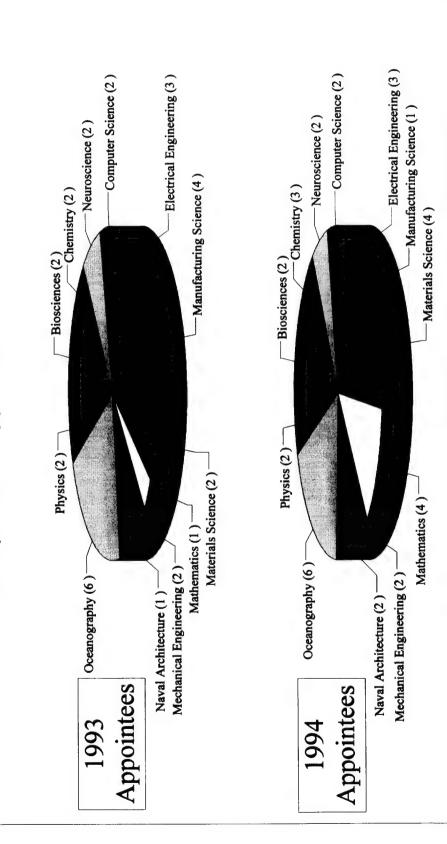
Charles Boudreau received his Master's degree from Harvard University. Mr. Boudreau indicated he planned to continue his doctoral studies at a later date. Mr. Boudreau accepted a full-time position as a Technology Specialist at Fish & Richardson, P.C.

Edison Chu received his Master's degree from MIT. Mr. Chu asked for and received a leave of absence for personal reasons from the NDSEG Fellowship. He has not been awarded another NDSEG fellowship, but indicated he plans to continue his doctoral studies at a later date.

Jean Moroney completed one year of graduate studies at Carnegie-Mellon University. Ms. Moroney asked for and was granted a leave of absence. Ms. Moroney left the NDSEG Fellowship Program to enroll at the Ann Rand Institute to research Objectivism. She was offered a year deferral of her NDSEG fellowship; after the year was completed she declined to return to the fellowship program. Ms. Moroney indicated her plans to continue her doctoral studies at a later date.

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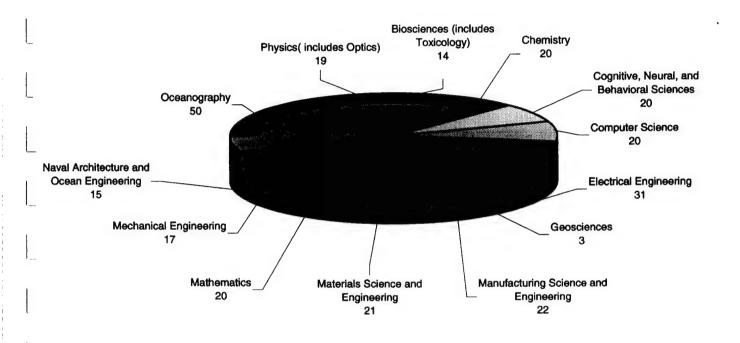
## ONR-Funded NDSEG Fellows Disciplines of Appointees, 1993-1994



### ONR-NDSEG Disciplines

isciplines	1989	1990	1991	1992	1993	1994	Totals
Aeronautical and Astronautical Engineering	0	0	0	0	0	0	0
Biosciences (includes Toxicology)	0	3	5	2	2	2	14
hemical Engineering	0	0	0	0	0	0	0
hemistry	4	3	6	2	2	3	20
Cognitive, Neural, and Behavioral Sciences	5	3	6	2	2	2	20
Computer Science	3	5	7	1	2	2	20
_lectrical Engineering	4	5	13	3	3	3	31
eosciences	3	0	0	0	0	0	3
Manufacturing Science and Engineering	2	4	6	5	4	1	22
Materials Science and Engineering	4	4	5	2	2	4	21
/athematics	3	3	6	3	1	4	20
lechanical Engineering	2	4	5	2	2	2	17
**aval Architecture and Ocean Engineering	0	2	8	2	1	2	15
Oceanography	5	10	16	7	6	6	50
rhysics( includes Ootics)	4	4	6	1	2	2	19
Totals:		50	89	32	29	33	272

### 1989-1994 ONR-NDSEG Fellows Discipline Analysis



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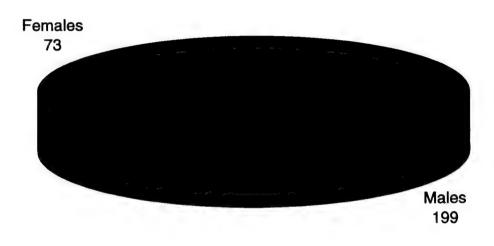
Biosciences (includes Toxicology)	14
Chemistry	20
Cognitive, Neural, and Behavioral Sciences	20
Computer Science	20
Electrical Engineering	31
Geosciences	3
Manufacturing Science and Engineering	22
laterials Science and Engineering	21
Mathematics	20
Mechanical Engineering	17
laval Architecture and Ocean Engineering	15
Oceanography	50
Physics(includes Optics)	19
otals	272

### 1989 - 1994 ONR-NDSEG Fellows Ethnicity Table

Ethnicity
African American
Asian
Hispanic
Non-Minority
Pacific Islander
American Indian
Other
Totals

Males	Females	Totals
9	4	13
10	5	15
11	4	15
163	60	223
3	0	3
3	0	3
0	0	0
199	73	272

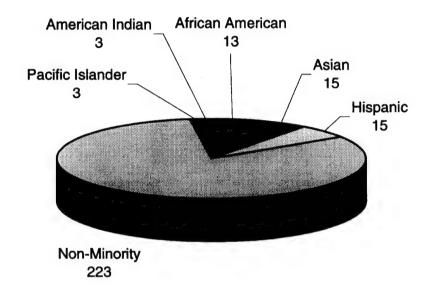
### 1989-1994 ONR-NDSEG Fellows Gender Analysis



### 989 - 1994 ONR-NDSEG Fellows

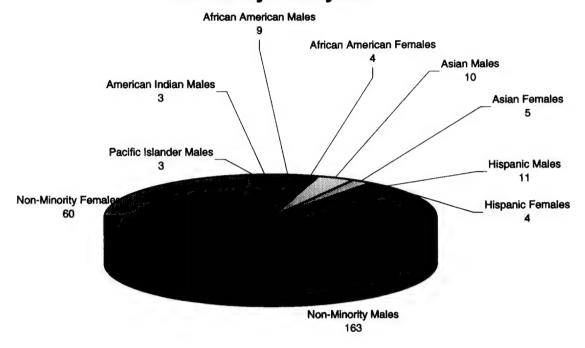
./lales	199
Females	73
otal:	272

### 1989-1994 ONR-NDSEG Fellows Ethnicity Analysis



\frican American	13
Asian	15
Hispanic	15
Ion-Minority	223
Pacific Islander	3
American Indian	3
otal:	272

### 1989-1994 ONR-NDSEG Fellows Ethnicity Analysis



African American Males	9
African American Females	4
<sup>¬</sup> \sian Males	10
Asian Females	5
Hispanic Males	11
Hispanic Females	4
Non-Minority Males	163
Non-Minority Females	60
<sup>2</sup> acific Islander Males	3
American Indian Males	3
Total	272

Attachment G: Comments from former fellows.

Thomas Annau wrote: "The NDSEG fellowship was an invaluable part of supporting my academic career.:

Steven Attanasio wrote: "I would like to formally thank ONR and ASEE for providing me with financial support during my first three years of graduate school. It has been a great honor to be recognized as a DoD fellow. In addition, the ONR financial support helped me to be flexible in my choice of an adviser and a thesis project. I will be sure to acknowledge the aid of ONR in any publications derived from work on my PhD thesis or from work performed during the summer which I spent at NSWC Carderock. I am now doing research for Naval Nuclear Propulsion Systems at the Knolls Atomic Power Lab in Schenectady, so the DoD is getting a direct benefit for having funded my work. I would also like to thank you for being a helpful contact during my years as a DoD fellow, despite the extra paperwork which I know I sometimes caused you. If I can be of any help to you or to future graduate students, please let me know."

Adam Berger wrote: "I am extremely appreciative of the support from ONR during my years as a graduate student. One project I worked on as a graduate student was for the Military Airlift Command. After graduation I was not able to find an academic position. Consequently, I have started my own company specializing in risk management solutions for individuals and organizations. If you have any questions or if I can be of any assistance, please don't hesitate to call."

Michael Bower wrote: "The fellowship helped us survive in one of the most expensive areas in the country."

Edward Brook wrote: "I believe that programs like the DoD graduate fellowship are vital. As funding for science (and therefore the number of new PhDs) shrinks, it is extremely important that high quality researchers continue to be supported by programs of this type."

Stephen Chick wrote: "The ONR-NDSEG program permitted me to jump-start my research work during grad school. A great program!"

Peter Daly wrote: "I would like to take this opportunity to thank you for administering my ONR-NDSEG fellowship. For the past four years, you have done an excellent job processing my stipend and tuition money. The efficiency and reliability of the ASEE-administered program was remarkable. I could always count on my stipend being automatically forwarded to my checking account on time. My tuition payments were promptly made, and my student health insurance covered. The fellowship which you administered has funded me, either through stipend or tuition, nearly \$200,000 over the past four years. My graduate education would not have been possible without it. Again, thank you very much for your superior work."

T.E

David Ephron wrote: "I strongly believe that attaching fellowship funds directly to students who can then choose where and for whom to work is an essential means of providing additional feedback on research programs beyond the normal research grant process."

Francis Fung wrote: "I think you will be pleased to know that my company does a lot of work for the DoD and other government agencies, such as NASA, DARPA, and Rome Labs."

Archie Holmes wrote: "The ONR-NDSEG fellowship was extremely helpful to me early in my grad school career. It gave me the opportunity to spend a quarter talking to different faculty members about their research programs and choose one in which I had a very strong interest. This was mainly possible because minimal resources needed to be provided by the professor initially. The ability to have some control over one's research project via fellowship funds has led, in my case, to an opportunity that may have been hard in other circumstances. I feel that the investment made in me by the ONR-NDSEG fellowship has helped me in defining an important problem on which to work. I allowed me more flexibility to obtain different experiences that I feel will serve me well in my career as an educator of future engineers."

James Kaihatu wrote: "Without the fellowship I doubt that I would have been able to attain my PhD. It was invaluable."

Jordan Katine wrote: "I just want ONR and ASEE to know that I really am grateful for the support from my fellowship. The unfortunate truth is that many advisers at Harvard are reluctant to accept grad students without fellowships into their research groups. Furthermore, the teaching responsibilities that students without fellowships are forced to assume can easily add a year to their time in grad school. Your fellowship allowed me to survive the first year of grad studies without much of the pressure many of my colleagues had to face."

Karen Kohfeld wrote: "I feel very fortunate to have received this funding. In a time when funding is quite scarce, this money provided me with the possibility of continuing my studies. In addition, the award was quite an honor."

Carol Lee wrote: "The ONR predoc was very helpful, especially the extra \$2,000 annual institutional money. I used it for research when my advisor had no funds."

Katherine Lee wrote: "My predoctoral fellowship from the Office of Naval Research was extremely beneficial to my development as a chemist. First of all, it enabled me to join the Danheiser research group (my first choice), where I received excellent training in organic synthesis over the past five years. Second, I was not required to teach during my first year and therefore could concentrate on getting started in the lab. I opted to teach in my fourth year and found that as an advanced graduate student I had more to offer as a teacher than I would have as a first year graduate student. The fellowship also enabled me to volunteer in MIT's Chemistry Outreach program, an organization of graduate students who perform chemistry demonstrations in local high schools. I later became the leader of this program; it was invaluable experience for me. Thank you again for the support. In my opinion, the fellowship was money well spent!"

John Marchelya wrote: "Thanks to all of the ASEE and ONR staff for everything; your support of my education is much appreciated and has, in effect, forever changed and improved my life. Thank you. I will, as you request, keep in touch with ASEE and ONR and will cite your support in any research documents I produce."

Jennifer McLean wrote: "I would like to take this opportunity to express my sincere appreciation to ONR for selecting me to receive the NDSEG fellowship. It has been a tremendous blessing and honor. I would also like to thank ASEE for the work it has done in the administration of the fellowship. All of the details were handled in a very professional and timely manner. Thank you also for all of the personal assistance you have given me over the past three years."

Kenneth Menningen wrote: "I am indebted to your fine support during my graduate study! Thanks!"

Thomas Orsi wrote: "Thanks for your efforts. Your program is extremely well run."

Robert Peters wrote: "I just wanted to again express my gratitude to you, ONR and ASEE for funding the first three years of my graduate work. I am well aware of the cost associated with higher education, and am grateful for your support on the order of \$143,000; your fellowship was not only a tremendous financial help, but a prestigious honor as well. Thank you once again for your generous fellowship, and I will be sure to include you in the acknowledgements in my dissertation and any other publications, and keep you informed of my progress as well."

Ann Redsten wrote: "I am extremely grateful for all you have done to make the first three years at MIT possible. Without support from the NDSEG program and your efficient administration of the award, I would not have been able to work on my current project. I am working with a professor at MIT who did not initially have the funds to support my research project. Because of this fellowship, I was able to join his group and have tremendous flexibility in choosing a project. As a result, I believe I will be able to produce an excellent thesis. Again, thank you for all you have done to help me through the first, quite difficult, three years of graduate school."

Jeffrey Russakow wrote: "More than ever, a full fellowship upon entering grad school is <u>essential</u> to timely completion of a PhD, and enables the student to voice a reasonable opinion about the choice of a research topic. Indeed, most of my fellow students who arrived at Stanford without independent funding have either (a) dropped out after a struggle due to lack of funds, or (b) made little research progress in the first few years due to the need to scrap for funding. A full three-year fellowship enabled me to join a lab quickly and focus directly on useful research in the course of a PhD."

John Ryan wrote: "I want to let you know how important this opportunity has been. Graduate education is a luxury, and with your help I have been able to pursue an ideal. My education in oceanography will continue here at URI. I extend my sincere gratitude to ONR and to ASEE for their help and support and I wish you all well."

Paul Sanders wrote: "Thanks for making this program easy to use."

Mark Stevenson wrote: "ONR's support was acknowledged thoroughly in my dissertation. Thank you for your help."

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Dana Swift wrote: "The short answer is that without the fellowship I could not have attended

grad school. Two papers as well as my master's degree in ocean physics resulted from this. I participated in a large 3-year field experiment in the North Pacific ocean as part of the World Ocean Circulation Experiment (WOCE). I designed the apparatus needed to accurately target the floats to the proper depth. These floats demonstrated truly spectacular results about deep ocean circulation. Many future papers will spring from the excellent data returned by these floats. My contributions in these areas would have been zero without the fellowship. Thank you."

Richard Voyles wrote: "I would like to thank you and ASEE for managing the NDSEG fellowship program during my period as a fellow. Your administration was efficient, responses were timely, and I experienced no problems during my three years in the program. As a member of ASEE, I am also pleased that the society has taken on tasks such as the administration of graduate fellowships. This is a natural way for ASEE to participate in the fostering of the pursuit of advanced degrees by US citizens - an issue that has been much discussed of late. In my particular case, I would not have entered the PhD program at Carnegie Mellon if it had not been for this award. Although I was not able to finish my degree in the three years allotted, I have secured continuation funding from Carnegie Mellon and upon completion I hope to enter the academic ranks. The NDSEG award was the determining factor in my returning to school to get my PhD. As a practicing engineering with a master's earning over \$50K per year, the incentive to return to student wages was not there. The extra income made it tolerable for my family, while the honor of receiving a nationally-competitive fellowship made it worthwhile for me."

David Selkirk Wilson wrote: "Thanks for the efficient, effective work your organization has done in administering this grant. The deposits have always been made smack-dab on time, and the administrative burden has been virtually nil. Any forms you wanted from us were mailed to us with more than enough time to respond. Again, thank you for your professional, dedicated work; it has made my studies possible."

Lonce Wyse wrote: "I want to take this opportunity to express my gratitude for the support from DoD and ASEE during the last three years. Because I was independently funded, I had the freedom to apply the neural network techniques developed here to an area not previously focussed on by this department. The results of the work have been quite rewarding, and I hope to continue this line of research in my career. I will be presenting a paper in Beijing this November. I plan to submit a report on the conference to Dr. Kahaner at ONR/Asia for publication in the 'ONR Scientific Information Bulletin'. This division of ONR is one in which I would be particularly interested and qualified to be involved with in the future. I have received a research assistantship to carry me through the completion of my dissertation work. I look forward to future relationships we may have based on research of our mutual interests."